

Find the restrictions. Then solve and check.

1. $\frac{1}{5x} = \frac{1}{10}$

2. $\frac{1}{7y} = \frac{1}{21}$

3. $\frac{x}{4} + \frac{x}{5} = 9$

4. $\frac{x}{5} + \frac{x}{3} = 16$

5. $\frac{x}{3} + \frac{1}{6} = \frac{x}{4} + \frac{1}{4}$

6. $\frac{2y}{9} - \frac{5}{6} = \frac{y}{9} - \frac{1}{2}$

7. $\frac{x}{3} + \frac{x}{2} = 5$

8. $\frac{y}{5} + \frac{y}{2} = 7$

9. $\frac{x}{4} - 1 = \frac{x}{8}$

10. $\frac{x-4}{6} = \frac{x-4}{2}$

11. $\frac{y+4}{5} = \frac{y-2}{3}$

12. $\frac{10}{6x+7} = \frac{6}{2x+9}$

13. $\frac{4}{y-3} = \frac{6}{y+3}$

14. $\frac{2x}{3} - \frac{1}{2} = \frac{2x+5}{6}$

15. $\frac{3x-2}{12} - \frac{1}{6} = \frac{1}{6}$

16. $\frac{-6}{2-4x} = \frac{10}{6x-8}$

17. $\frac{2}{3x-5} = \frac{4}{x-15}$

18. $\frac{1}{x+12} = \frac{3x}{3x^2+36}$

19. $\frac{7y}{y^2-4} + \frac{5}{y-2} = \frac{2y}{y^2-4}$

20. $\frac{4x}{x^2-16} + \frac{5}{x+4} = \frac{5x}{x^2-16}$

21. $\frac{7x-2}{11} - 1 = \frac{2x-7}{3}$

22. $\frac{3x-6}{x} + 1 = \frac{10}{x} + \frac{4}{x}$

23. $2 - \frac{1}{x+1} = \frac{x}{x+1}$

24. $3 + \frac{4}{y-4} = \frac{y}{y-4}$

25. $\frac{5}{x^2-7x+12} - \frac{2}{3-x} = \frac{5}{x-4}$

26. $\frac{3}{x+5} + \frac{2}{5-x} = \frac{-4}{x^2-25}$

27. $\frac{8}{x^2-x} + \frac{8}{x} = \frac{6}{2x-2}$

28. $\frac{5}{x+2} = \frac{-1}{x^2+7x+10} + \frac{3}{-x-5}$

29. $\frac{7x+3}{x^2-8x+15} + \frac{3x}{x-5} = \frac{-1}{x-3}$

30. $\frac{10}{2y+8} - \frac{7y+8}{y^2-16} = \frac{-8}{2y-8}$

31. $\frac{x-5}{x^2-4x-5} - \frac{2x-5}{x^2-x-2} = 0$

32. $\frac{x+4}{x^2+4x} - \frac{x}{x^2+6x} = 0$

33. $\frac{2}{x+3} - \frac{3}{4-x} = \frac{2x-2}{x^2-x-12}$

34. $\frac{4}{x+4} = \frac{-5}{x^2-16} + 1$